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Micron Technology, Inc., and  
Micron Consumer Products Group LLC*

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

YANGTZE MEMORY TECHNOLOGIES  
COMPANY, LTD.,

Plaintiff,

v.

MICRON TECHNOLOGY, INC., et al.,

Defendants.

Case No. 3:23-cv-05792-RFL

**DEFENDANTS' ANSWER TO FIRST  
AMENDED COMPLAINT AND  
COUNTERCLAIMS**

**DEMAND FOR JURY TRIAL**

Judge: Hon. Rita F. Lin

MICRON TECHNOLOGY, INC.,

Counterclaim Plaintiff,

v.

YANGTZE MEMORY TECHNOLOGIES  
COMPANY, LTD., and YANGTZE  
MEMORY TECHNOLOGIES, INC.,

Counterclaim Defendants.

1 Defendants Micron Technology, Inc. (“Micron Technology” or “MTI”) and Micron  
 2 Consumer Products Group LLC (“MCPG”) (collectively “Defendants” or “Micron”), by and  
 3 through their undersigned counsel, hereby submit this answer to the First Amended Complaint  
 4 (“FAC”) filed by Yangtze Memory Technologies Company, Ltd. (“YMTC”) on February 2, 2024,  
 5 and hereby assert counterclaims against YMTC and Yangtze Memory Technologies, Inc. (“YMTC  
 6 Inc.”) (YMTC and YMTC Inc. collectively, “the YMTC Entities”). To the extent not expressly  
 7 admitted below, Defendants deny each and every allegation of the FAC.

### 8 PRELIMINARY STATEMENT

9 1. Micron admits that YMTC filed its original complaint in this action on November  
 10 9, 2023. Micron avers that the original complaint was so deficient and conclusory that Micron  
 11 moved to dismiss it for failure to state a claim – a motion that YMTC did not oppose. Micron  
 12 further avers that the original complaint was so deficient and conclusory, and Micron’s motion to  
 13 dismiss was so meritorious, that YMTC abandoned its original complaint and filed an amended  
 14 complaint that includes claim charts and other allegations that were not part of the original  
 15 complaint. Except as so admitted and averred, Micron denies the allegations of paragraph 1 of the  
 16 FAC.

17 2. Micron admits that it requested, and YMTC agreed to, a 45-day extension to respond  
 18 to the original complaint. Micron further admits that the agreed extension is documented in a  
 19 stipulation between the parties filed on November 29, 2023. Except as so admitted, Micron denies  
 20 the allegations of paragraph 2 of the FAC.

21 3. Micron admits that MTI and/or one or more of its subsidiaries design and  
 22 manufacture 3D NAND products, including the products accused of infringement in this action,  
 23 and that MTI and/or one or more of its subsidiaries has information about the structure, layout, and  
 24 fabrication of those 3D NAND products. Micron further avers that YMTC’s original complaint  
 25 was so deficient and conclusory that it did not put Micron on notice of YMTC’s infringement  
 26 claims. Micron further avers that, if YMTC’s original complaint had put Micron on notice of  
 27 YMTC’s claims in compliance with the law, YMTC would have opposed Micron’s motion to  
 28 dismiss the complaint for failure to state a claim, which it did not. Micron further avers that the

1 failure of YMTC to oppose Micron's motion to dismiss, its abandonment of its original complaint,  
 2 and the extensive differences between the original complaint and the FAC demonstrate that the  
 3 original complaint failed to meet the requirements of Rules 8 and 12 of the Federal Rules of Civil  
 4 Procedure and failed to put Micron on notice of YMTC's infringement claims. Except as so  
 5 admitted and averred, Micron denies the allegations of paragraph 3 of the FAC.

6 4. Micron denies the allegations of paragraph 4 of the FAC.

7 5. Micron denies the allegations of paragraph 5 of the FAC.

8 6. Micron denies the allegations of paragraph 6 of the FAC.

### 9 NATURE OF THE ACTION

10 7. Micron is without knowledge or information sufficient to form a belief as to the truth  
 11 of the allegations in the fourth and sixth sentences of paragraph 7 of the FAC and, on that basis,  
 12 denies them. Micron denies the remaining allegations of paragraph 7 of the FAC.

13 8. Micron is without knowledge or information sufficient to form a belief as to the truth  
 14 of the allegations in the second sentence of paragraph 8 of the FAC and, on that basis, denies them.  
 15 Micron denies the remaining allegations of paragraph 8 of the FAC.

16 9. Micron admits that 3D NAND flash memory is a widely used form of memory, that  
 17 it is used in a variety of products and solutions, and that competition and innovation are beneficial  
 18 to society. Except as so admitted, Micron denies the allegations of paragraph 9 of the FAC.

19 10. Micron denies the allegations of paragraph 10 of the FAC.

20 11. Micron admits that YMTC is asserting the "Asserted Patents" against Micron in this  
 21 lawsuit. Except as so admitted, Micron denies the allegations of paragraph 11 of the FAC.

### 22 THE PARTIES

23 12. Admitted.

24 13. Micron admits the first sentence of paragraph 13 of the FAC. Micron further admits  
 25 that it does not contest the propriety of service of process in this action through CSC in Sacramento,  
 26 California. Except as so admitted, Micron denies the allegations of paragraph 14 of the FAC.

27 14. Micron admits that MCPG is a wholly-owned subsidiary of MTI, that it is organized  
 28 under the laws of the State of Delaware, and that it has a principal place of business at 110 Holger

Way, San Jose, California 95134. MCPG further admits that it does not contest the propriety of service of process in this action through CSC in Sacramento, California. Except as so admitted, Micron denies the allegations of paragraph 14 of the FAC.

15. Micron denies the allegations of paragraph 15 of the FAC.

16. Micron denies the allegations of paragraph 16 of the FAC.

### **JURISDICTION AND VENUE**

17. Without admitting that YMTC has standing to maintain this lawsuit, Micron admits the allegations of paragraph 17 of the FAC.

18. Micron admits that the Court has personal jurisdiction over Micron for purposes of this action. Except as so admitted, Micron denies the allegations of paragraph 18 of the FAC.

19. Micron denies the allegations of paragraph 19 of the FAC.

20. Micron denies the allegations of paragraph 20 of the FAC.

21. Micron admits that venue for this action is proper in this judicial district. Except as so admitted, Micron denies the allegations of paragraph 21 of the FAC.

22. Micron denies the allegations of paragraph 22 of the FAC.

### **DIVISIONAL ASSIGNMENT**

23. Micron admits that, under General Order No. 44, this district maintains a district-wide system of assignment for “intellectual property rights” actions. Except as so admitted, Micron denies the allegations of paragraph 23 of the FAC.

### **YMTC’S ALLEGED INNOVATIONS AND PATENTS**

24. Micron admits that YMTC has a wholly-owned subsidiary, YMTC Inc., in this judicial district. Micron further admits that YMTC supplies 3D NAND products on a global basis, including in the United States. Micron denies the second sentence of paragraph 24 of the FAC. Except as so admitted and denied, Micron lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 24 of the FAC and, on that basis, denies them.

25. Micron denies the last sentence of paragraph 25 of the FAC. Except as so denied, Micron lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 25 of the FAC and, on that basis, denies them.

1           26.     Micron denies the allegations of paragraph 26 of the FAC.

2           27.     Micron denies the allegations of paragraph 27 of the FAC.

3                           **MICRON'S ACCUSED PRODUCTS AND ACTIVITIES**

4           28.     Micron admits that MTI is an industry leader in innovative computer-memory and  
5 data-storage solutions, including 3D NAND. Except as so admitted, Micron denies the allegations  
6 of paragraph 28 of the FAC.

7           29.     Micron admits that MTI and/or one or more of its subsidiaries has designed, made,  
8 used, sold, and/or offered for sale 96-Layer 3D NAND memory products, including products with  
9 the B27A design ID. Micron lacks knowledge or information sufficient to form a belief as to the  
10 truth of the allegations in the second sentence of paragraph 29 of the FAC and, on that basis, denies  
11 them. Except as so admitted and denied, Micron denies the allegations of paragraph 29 of the FAC.

12          30.     Micron admits that MTI and/or one or more of its subsidiaries has designed, made,  
13 used, sold, and/or offered for sale 128-Layer 3D NAND memory products, including products with  
14 the B37R design ID. Micron lacks knowledge or information sufficient to form a belief as to the  
15 truth of the allegations in the second sentence of paragraph 30 of the FAC and, on that basis, denies  
16 them. Except as so admitted and denied, Micron denies the allegations of paragraph 30 of the FAC.

17          31.     Micron admits that MTI and/or one or more of its subsidiaries has designed, made,  
18 used, sold, and/or offered for sale 176-Layer 3D NAND memory products, including products with  
19 the N48R and B47R design IDs. Micron lacks knowledge or information sufficient to form a belief  
20 as to the truth of the allegations in the second and third sentences of paragraph 31 of the FAC and,  
21 on that basis, denies them. Except as so admitted and denied, Micron denies the allegations of  
22 paragraph 31 of the FAC.

23          32.     Micron admits that MTI and/or one or more of its subsidiaries has designed, made,  
24 used, sold, and/or offered for sale 232-Layer 3D NAND memory products, including products with  
25 the B58R design ID. Micron lacks knowledge or information sufficient to form a belief as to the  
26 truth of the allegations in the second sentence of paragraph 32 of the FAC and, on that basis, denies  
27 them. Except as so admitted and denied, Micron denies the allegations of paragraph 32 of the FAC.

33. Micron admits that YMTC purports to call certain 3D NAND products the “Accused Memory Products.” Except as so admitted, Micron denies the allegations of paragraph 33 of the FAC.

34. Micron admits that MTI and/or one or more of its subsidiaries has made, used, sold, and/or offered for sale the “Accused Memory Products.” Micron further admits that various third parties may use one or more of the “Accused Memory Products” in their own products and solutions. Except as so admitted, Micron lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 34 of the FAC and, on that basis, denies them.

35. Micron admits that MTI and/or one or more of its subsidiaries has conducted research, development, and testing of the “Accused Memory Products.” Except as so admitted, Micron denies the allegations of paragraph 35 of the FAC.

36. Micron denies the allegations of paragraph 36 of the FAC.

37. Micron admits that MTI and/or one or more of its subsidiaries sells and/or offers to sell the Accused Memory Products. Except as so admitted, Micron denies the allegations of paragraph 37 of the FAC.

38. Micron admits that the micron.com website lists one or more distributors. Except as so admitted, Micron denies the allegations of paragraph 38 of the FAC.

39. Micron admits that MTI and/or one or more of its subsidiaries has used the Accused Memory Products and has sold and/or offered to sell the Accused Memory Products to one or more customers in a number of sectors. Except as so admitted, Micron denies the allegations of paragraph 39 of the FAC.

40. Micron denies the allegations of paragraph 40 of the FAC.

41. Micron denies the allegations of paragraph 41 of the FAC.

42. Micron denies the allegations of paragraph 42 of the FAC.

## COUNT I

43. Micron incorporates by reference and realleges its responses to all the foregoing paragraphs of this Answer as if fully set forth herein.

46. Micron denies the allegations of paragraph 46 of the FAC.

48. Micron admits that it identified numerous deficiencies in YMTC's original complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products include or practice one or more claim limitations of the '623 patent. Micron's motion to dismiss is on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations of paragraph 48 of the FAC.

50. Micron denies the allegations of paragraph 50 of the FAC.

52. Micron denies the allegations of paragraph 52 of the FAC.

53. Micron incorporates by reference and realleges its responses to all the foregoing paragraphs of this Answer as if fully set forth herein.

54. Micron admits that YMTC filed as Exhibit 2 what appears to be a copy of the '822 patent, which is entitled “Non-Volatile Memory Device and Control Method.” Except as so admitted, Micron lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 54 of the FAC and, on that basis, denies them.

55. Micron denies the allegations of paragraph 55 of the FAC.

56. Micron denies the allegations of paragraph 56 of the FAC.

57. Micron denies the allegations of paragraph 57 of the FAC.

58. Micron admits that it identified numerous deficiencies in YMTC's original complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products

1 include or practice one or more claim limitations of the '822 patent. Micron's motion to dismiss is  
 2 on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations  
 3 of paragraph 58 of the FAC.

4 59. Micron denies the allegations of paragraph 59 of the FAC.

5 60. Micron denies the allegations of paragraph 60 of the FAC.

6 61. Micron denies the allegations of paragraph 61 of the FAC.

7 62. Micron denies the allegations of paragraph 62 of the FAC.

### 8 **COUNT III**

9 63. Micron incorporates by reference and realleges its responses to all the foregoing  
 10 paragraphs of this Answer as if fully set forth herein.

11 64. Micron admits that YMTC filed as Exhibit 3 what appears to be a copy of the '378  
 12 patent, which is entitled "Through Array Contact (TAC) for Three-Dimensional Memory Devices."  
 13 Except as so admitted, Micron lacks knowledge or information sufficient to form a belief as to the  
 14 truth of the allegations in paragraph 64 of the FAC and, on that basis, denies them.

15 65. Micron denies the allegations of paragraph 65 of the FAC.

16 66. Micron denies the allegations of paragraph 66 of the FAC.

17 67. Micron denies the allegations of paragraph 67 of the FAC.

18 68. Micron admits that it identified numerous deficiencies in YMTC's original  
 19 complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products  
 20 include or practice one or more claim limitations of the '378 patent. Micron's motion to dismiss is  
 21 on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations  
 22 of paragraph 68 of the FAC.

23 69. Micron denies the allegations of paragraph 69 of the FAC.

24 70. Micron denies the allegations of paragraph 70 of the FAC.

25 71. Micron denies the allegations of paragraph 71 of the FAC.

26 72. Micron denies the allegations of paragraph 72 of the FAC.

27 73. Micron denies the allegations of paragraph 73 of the FAC.



**COUNT IV**

74. Micron incorporates by reference and realleges its responses to all the foregoing paragraphs of this Answer as if fully set forth herein.

75. Micron admits that YMTC filed as Exhibit 4 what appears to be a copy of the '806 patent, which is entitled "Through Array Contact (TAC) for Three-Dimensional Memory Devices." Except as so admitted, Micron lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 75 of the FAC and, on that basis, denies them.

76. Micron denies the allegations of paragraph 76 of the FAC.

77. Micron denies the allegations of paragraph 77 of the FAC.

78. Micron denies the allegations of paragraph 78 of the FAC.

79. Micron admits that it identified numerous deficiencies in YMTC's original complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products include or practice one or more claim limitations of the '806 patent. Micron's motion to dismiss is on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations of paragraph 79 of the FAC.

80. Micron denies the allegations of paragraph 80 of the FAC.

81. Micron denies the allegations of paragraph 81 of the FAC.

82. Micron denies the allegations of paragraph 82 of the FAC.

83. Micron denies the allegations of paragraph 83 of the FAC.

84. Micron denies the allegations of paragraph 84 of the FAC.

**COUNT V**

85. Micron incorporates by reference and realleges its responses to all the foregoing paragraphs of this Answer as if fully set forth herein.

86. Micron admits that YMTC filed as Exhibit 5 what appears to be a copy of the '872 patent, which is entitled "Three-Dimensional Memory Device and Method for Forming the Same." Except as so admitted, Micron lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 86 of the FAC and, on that basis, denies them.

87. Micron denies the allegations of paragraph 87 of the FAC.

1 88. Micron denies the allegations of paragraph 88 of the FAC.

2 89. Micron denies the allegations of paragraph 89 of the FAC.

3 90. Micron admits that it identified numerous deficiencies in YMTC's original  
4 complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products  
5 include or practice one or more claim limitations of the '872 patent. Micron's motion to dismiss is  
6 on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations  
7 of paragraph 90 of the FAC.

8 91. Micron denies the allegations of paragraph 91 of the FAC.

9 92. Micron denies the allegations of paragraph 92 of the FAC.

10 93. Micron denies the allegations of paragraph 93 of the FAC.

11 94. Micron denies the allegations of paragraph 94 of the FAC.

## 12 **COUNT VI**

13 95. Micron incorporates by reference and realleges its responses to all the foregoing  
14 paragraphs of this Answer as if fully set forth herein.

15 96. Micron admits that YMTC filed as Exhibit 6 what appears to be a copy of the '957  
16 patent, which is entitled "Architecture and Method for NAND Memory Operation." Except as so  
17 admitted, Micron lacks knowledge or information sufficient to form a belief as to the truth of the  
18 allegations in paragraph 96 of the FAC and, on that basis, denies them.

19 97. Micron denies the allegations of paragraph 97 of the FAC.

20 98. Micron denies the allegations of paragraph 98 of the FAC.

21 99. Micron denies the allegations of paragraph 99 of the FAC.

22 100. Micron admits that it identified numerous deficiencies in YMTC's original  
23 complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products  
24 include or practice one or more claim limitations of the '957 patent. Micron's motion to dismiss is  
25 on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations  
26 of paragraph 100 of the FAC.

27 101. Micron denies the allegations of paragraph 101 of the FAC.

28 102. Micron denies the allegations of paragraph 102 of the FAC.

103. Micron denies the allegations of paragraph 103 of the FAC.

104. Micron denies the allegations of paragraph 104 of the FAC.

### COUNT VII

105. Micron incorporates by reference and realleges its responses to all the foregoing paragraphs of this Answer as if fully set forth herein.

106. Micron admits that YMTC filed as Exhibit 7 what appears to be a copy of the '342 patent, which is entitled "Method for Reading Three-Dimensional Flash Memory." Except as so admitted, Micron lacks knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 106 of the FAC and, on that basis, denies them.

107. Micron denies the allegations of paragraph 107 of the FAC.

108. Micron denies the allegations of paragraph 108 of the FAC.

109. Micron denies the allegations of paragraph 109 of the FAC.

110. Micron admits that it identified numerous deficiencies in YMTC's original complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products include or practice one or more claim limitations of the '342 patent. Micron's motion to dismiss is on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations of paragraph 110 of the FAC.

111. Micron denies the allegations of paragraph 111 of the FAC.

112. Micron denies the allegations of paragraph 112 of the FAC.

113. Micron denies the allegations of paragraph 113 of the FAC.

114. Micron denies the allegations of paragraph 114 of the FAC.

### COUNT VIII

115. Micron incorporates by reference and realleges its responses to all the foregoing paragraphs of this Answer as if fully set forth herein.

116. Micron admits that YMTC filed as Exhibit 8 what appears to be a copy of the '031 patent, which is entitled "Multiple-Stack Three-Dimensional Memory Device and Fabrication Method Thereof." Except as so admitted, Micron lacks knowledge or information sufficient to

1 form a belief as to the truth of the allegations in paragraph 116 of the FAC and, on that basis, denies  
2 them.

3 117. Micron denies the allegations of paragraph 117 of the FAC.

4 118. Micron denies the allegations of paragraph 118 of the FAC.

5 119. Micron denies the allegations of paragraph 119 of the FAC.

6 120. Micron admits that it identified numerous deficiencies in YMTC's original  
7 complaint in Micron's motion to dismiss, including YMTC's failure to plead that Micron's products  
8 include or practice one or more claim limitations of the '031 patent. Micron's motion to dismiss is  
9 on file with the Court and speaks for itself. Except as so admitted, Micron denies the allegations  
10 of paragraph 120 of the FAC.

11 121. Micron denies the allegations of paragraph 121 of the FAC.

12 122. Micron denies the allegations of paragraph 122 of the FAC.

13 123. Micron denies the allegations of paragraph 123 of the FAC.

14 124. Micron denies the allegations of paragraph 124 of the FAC.

#### 15 **PLAINTIFF'S PRAYER FOR RELIEF**

16 Micron denies that YMTC is entitled to any relief whatsoever in this action, either as prayed  
17 for in the amended complaint or otherwise.

#### 18 **DEFENSES**

19 Without assuming any burden other than that imposed by law, Micron asserts the following  
20 defenses in response to the allegations in the FAC. Micron reserves the right to assert additional  
21 defenses as they become known throughout the course of discovery in this action, including any  
22 defenses currently unknown to Micron. The assertion of a defense below is not a concession that  
23 Micron bears the burden of proving the matter asserted.

#### 24 **First Defense: Failure to State a Claim**

25 1. The FAC fails to state a claim upon which relief can be granted.

#### 26 **Second Defense: Noninfringement**

27 2. Micron has not infringed and does not infringe, directly or indirectly, any claim of  
28 the Asserted Patents.

**Third Defense: Invalidity**

3. One or more of the claims of the Asserted Patents are invalid for failure to satisfy the conditions for patentability set forth in 35 U.S.C. § 1 et seq., including 35 U.S.C. §§ 101, 102, 103, and/or 112.

**Fourth Defense: Prosecution History Estoppel and/or Disclaimer**

4. Based on proceedings before the U.S. Patent and Trademark Office during the prosecution of the applications that led to or resulted in the Asserted Patents, YMTC is precluded or otherwise estopped from asserting that any claim of the Asserted Patents covers, either literally or under the doctrine of equivalents, any product or method made, performed, used, sold, offered for sale, or imported by Micron.

**Fifth Defense: Limitation on Damages and Costs**

5. YMTC's claims and prayer for relief are barred in whole or in part by 35 U.S.C. §§ 286, 287, and/or 288, including without limitation based on failure to mark and lack of notice.

**Sixth Defense: Government Sales**

6. YMTC's claims are barred in whole or in part by 28 U.S.C. § 1498 to the extent they relate to use or manufacture of the alleged inventions of the Asserted Patents by or for the United States.

**MTI'S COUNTERCLAIMS**

MTI incorporates herein by reference the admissions, allegations, denials, and defenses contained in its answer above as if fully set forth herein. For its counterclaims against the YMTC Entities, MTI states as follows:

**Nature of the Action**

1. MTI asserts these patent infringement claims against the YMTC Entities arising from their infringement of U.S. Patent Nos. 10,475,737 (the "737 patent"), 8,945,996 (the "996 patent"), 8,803,214 (the "214 patent"), 10,872,903 (the "903 patent"), and 10,373,974 (the "974 patent") (collectively, the "MTI Asserted Patents"). On information and belief, each of the YMTC Entities commits the acts of infringement described herein individually and together as one enterprise.

**The Parties**

2. MTI is a Delaware corporation with its principal place of business at 8000 South Federal Way, Boise, Idaho 83716.

3. On information and belief, YMTC is a Chinese company with its principal place of business at No.88 Weilai 3<sup>rd</sup> Road, East Lake High-tech Development Zone, Wuhan, Hubei, China.

4. On information and belief, YMTC Inc. is a California corporation with its principal place of business at 2953 Bunker Hill Lane, Ste. 206, Santa Clara, California 95054.

**Jurisdiction and Venue**

5. MTI brings these counterclaims under the Patent Laws of the United States, 35 U.S.C. §§ 1 et seq., against the YMTC Entities for their infringement of the MTI Asserted Patents.

6. This Court has subject matter jurisdiction over MTI's counterclaims pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over YMTC, which is the plaintiff in this action. Further, YMTC commits acts of infringement in this District through its business and sales activities in the Northern District of California, including directly and/or indirectly selling, offering for sale, importing, and/or using products that practice (or are made in a manner that practices) one or more claims of the MTI Asserted Patents.

8. This Court has personal jurisdiction over YMTC Inc., which has its principal place of business in Santa Clara, California, in this judicial District. Further, YMTC Inc. commits acts of infringement in this District through its business and sales activities in the Northern District of California, including directly and/or indirectly selling, offering for sale, importing, and/or using products that practice (or are made in a manner that practices) one or more claims of the MTI Asserted Patents.

**MTI's Innovations and Patents**

9. MTI was founded in 1978 and is headquartered in Boise, Idaho. Since that time, MTI has become a world leader in innovative computer-memory and data-storage solutions, employing more than 43,000 employees worldwide with more than 5,000 employees in Idaho. Ex. 11 at 2; Ex. 12 at 5.

10. MTI is the only U.S.-based manufacturer of semiconductor memory devices, and its presence in the U.S. is growing. MTI recently announced plans to invest approximately \$15 billion through the end of the decade to construct a new memory manufacturing plant in Boise and up to \$100 billion over the next 20-plus years to build a fab near Syracuse, New York. Exs. 13-14. MTI's commitment to innovation is evident from its expansive patent portfolio that includes over 54,000 patents. Ex 11 at 2.

11. For over a decade, MTI has been at the forefront of developing new and innovative 3D NAND memory products. In March 2015, MTI launched its first 3D NAND product, a 32-layer high density memory chip. Ex. 15. Doing so required years of research and development before the product launch. These efforts led MTI to file dozens of patents on 3D NAND technology long before the product launch. Indeed, MTI described innovative 3D NAND arrays in patents it filed well before 2015. Exs. 16-17.

12. Since its initial 3D NAND product launch in 2015, MTI has continued to lead the world in 3D NAND innovation by developing and offering chips with greater memory capacity and capabilities. In early 2018, MTI doubled the number of layers in its 3D NAND products, releasing its 64-layer 3D NAND. Ex. 18. Thereafter, in 2019, MTI sampled its 128-layer 3D NAND (Ex. 19 at 7) and, in 2020, MTI was the first company in the world to launch 176-layer 3D NAND. Ex. 20. In July 2022, MTI became the first company to scale its 3D NAND technology to 232-layers in production. Ex 21. MTI has received numerous awards for and widespread recognition of its innovative 3D NAND technology. *See, e.g.*, Exs. 22-24.

#### **The Accused YMTC Products and the YMTC Entities' Infringing Activities**

13. YMTC is a global manufacturer and supplier of 3D NAND memory products. YMTC was founded in 2016 and is majority-owned by the Chinese government. Ex. 25. YMTC's founding followed the 2015 announcement of the Made in China 2025 initiative by Chinese President Xi Jinping. Ex. 26. The Made in China 2025 Initiative positioned semiconductors as a critical growth industry for the Chinese economy. *Id.* The Chinese Government's investment platform for funding the expansion of its semiconductor industry is the National Integrated Circuit Industry Investment Fund, more commonly known as the "Big Fund." *Id.*



1           14.     Latecomer YMTC has developed four generations of NAND storage devices since  
2 its founding in 2016: a first-generation 3D NAND storage technology incorporating a 32-layer 3D  
3 NAND memory array, a second-generation 3D NAND storage technology incorporating at least a  
4 64-layer 3D NAND memory array, a third-generation 3D NAND storage technology incorporating  
5 at least a 128-layer 3D NAND memory array, and a fourth generation 3D NAND storage  
6 technology incorporating at least a 232-layer 3D NAND memory array. Ex. 27.

7           15.     Unsurprisingly, given MTI's nearly decade long head start over YMTC into 3D  
8 NAND memory development, YMTC Entities began to hire NAND engineers from MTI or its  
9 affiliates and has hired at least 20 such engineers to date. Indeed, at least five of the named inventors  
10 on the YMTC Asserted Patents previously worked as engineers on 3D NAND R&D at Micron  
11 before they filed the YMTC Asserted Patents.

12           16.     The YMTC Entities have in the past and continue to directly and/or indirectly use,  
13 sell, offer for sale, import, supply, or otherwise distribute into the United States, and provide  
14 support for, their 64-layer 3D NAND storage technology and products containing the same  
15 (collectively, the "YMTC 64L Accused Products"), including the X1-9050 and X2-9060 and other  
16 memory chips (and memory products containing the same) that have the same or similar structures,  
17 features, or functionalities, and/or are made by the same or similar Xtacking® 1.0 technology  
18 manufacturing processes, as the aforementioned exemplary products.

19           17.     The YMTC Entities have in the past and continue to directly and/or indirectly use,  
20 sell, offer for sale, import, supply, or otherwise distribute into the United States, and provide  
21 support for, their 128-layer 3D NAND storage technology and products containing the same  
22 (collectively, the "YMTC 128L Accused Products"), including the X2-6070 and other memory  
23 chips (and memory products containing the same) that have the same or similar structures, features,  
24 or functionalities, and/or are made by the same or similar Xtacking® 2.0 technology manufacturing  
25 processes, as the aforementioned exemplary product.

26           18.     The YMTC Entities have in the past and continue to directly and/or indirectly use,  
27 sell, offer for sale, import, supply, or otherwise distribute into the United States, and provide  
28 support for, their 232-layer 3D NAND storage technology and products containing the same



(collectively, the “YMTC 232L Accused Products”), including the X3-9060, X3-9070, and X3-6070 and other memory chips (and memory products containing the same) that have the same or similar structures, features, or functionalities, and/or are made by the same or similar Xtacking® 3.0 technology manufacturing processes, as the aforementioned exemplary product.

19. Upon information and belief, each of the YMTC 64L Accused Products, YMTC 128L Accused Products, and YMTC 232L Accused Products have the same or similar structures, features, or functionalities, and/or are made by the same or similar manufacturing processes insofar as the structures, features, functionalities, and/or manufacturing processes of the Accused Products relate to the MTI Asserted Patents. Claim charts mapping the YMTC 232L Accused Products to the MTI Asserted Patents are provided as Exhibits 2, 4, 6, 8, 10.

20. The YMTC 64L Accused Products, YMTC 128L Accused Products, and YMTC 232L Accused Products are collectively referred to as the “YMTC Accused Storage Products.”

21. The YMTC Accused Storage Products are, or are integrated into, devices made, used, sold, offered for sale, imported, supplied, or otherwise distributed in the United States by among others, YMTC, YMTC Inc., YMTC’s customers, original equipment manufacturers (“OEMs”), original design manufacturers (“ODMs”), distributors, resellers, and other third parties, including under YMTC’s own brand name and under the Lexar brand name. For example, the Lexar NM800 contains or contained one or more of the YMTC 64L Accused Products, the Lexar NM710 contains or contained one or more of the YMTC 128L Accused Products, and the Lexar NM790 contains YMTC 232L Accused Products. Exs. 28-30. Further, in connection with trademark application Serial Number 88496703 filed with the United States Patent and Trademark Office, YMTC submitted a statement of use on May 22, 2020, in which it declared that it first used the YMTC mark in U.S. commerce at least as early as September 9, 2016 in connection with integrated circuits and various other products. YMTC submitted images of integrated circuits bearing the markings “YMTC3GSQDPPKG0” and “PL385008 AAX 1822” as well as images of a YMTC NAND memory solid-state drive identifiable as such by its marking “M.2 NVMe PCIe Gen3.0x4” and its markings “YMTC” and “Xtacking” as specimens showing its use in commerce on chips and

1 integrated circuits. Ex. 36. Xtacking is described by YMTC as its “innovative 3D NAND  
2 technology.” Ex. 37.

3 22. The YMTC Entities actively encourage others, such as their customers and  
4 distributors, to make, use, offer to sell, import, supply, or otherwise distribute into the United States  
5 the YMTC Accused Storage Products and products containing the YMTC Accused Storage  
6 Products. The YMTC Entities maintain a website that advertises the YMTC Accused Storage  
7 Products, including identifying the applications for which they can be used, along with  
8 specifications for the YMTC Accused Storage Products. See Ex. 38  
9 (<https://www.ymtc.com/en/buslist.html?cat=35>). The YMTC Entities specifically intend for their  
10 customers and end-users to use the YMTC Accused Storage Products in such applications and  
11 provide instructions and encouragement for their customers and end-users to do so.

12 23. On information and belief, the YMTC Accused Storage Products are designed to  
13 comply with safety standards required for sale or import into the U.S. market and the YMTC  
14 Entities make their website and other materials available in the English language.

15 24. The YMTC Entities know that the YMTC Accused Storage Products and products  
16 incorporating the same are used, made, designed, marketed, sold, offered for sale in, and/or  
17 imported into, the United States. For example, David Duffin, the US General Manager and Head  
18 of International Customer Sales at YMTC is, on information and belief, based in and works out of  
19 San Jose, California. Ex. 31. Mr. Duffin advertises that he is “used to regularly and directly  
20 interacting with customers.” *Id.*

21 25. From 2016-2019, Mr. Duffin was YMTC’s Vice President of Product & Test  
22 Engineering and, on information and belief, worked out of San Jose, California. Ex. 31. During  
23 this period from 2016-2019, Mr. Duffin was “[l]eading all Product, Test and Assembly Engineering  
24 for YMTC.” *Id.*

25 26. Mr. Duffin is listed as the CEO and Secretary of Yangtze Memory Technologies,  
26 Inc. Ex. 32. Mr. Duffin apparently has no prior executive-level experience and does not publicly  
27 advertise on his LinkedIn profile that he is the CEO of the U.S. arm of YMTC. Ex. 31.

27. Daesik Song, a former MTI Principal Design Engineer, with apparently no former management experience, was hired by YMTC Inc. as a “Director” in 2017 and has, on information and belief, worked from YMTC Inc.’s San Jose offices since that time. Ex. 33. Mr. Song has been and is listed as a YMTC Inc.’s Statement of Information filed with the California Secretary of State. Ex. 32.

28. On information and belief, YMTC controls and has controlled YMTC Inc.

29. YMTC admits that it is “dedicated to the development of memory products for the global market” and that it “maintains ties to Silicon Valley through a wholly-owned subsidiary, Yangtze Memory Technologies, Inc.” ECF No. 29 ¶ 24. YMTC Inc. Director Daniel (Tuenlap) Chan recently stated that YMTC’s “patent portfolio is designed to protect our innovations in markets that matter to YMTC and its partners.” Ex. 34. Thus, YMTC’s filing of U.S. patents demonstrates that YMTC considers the United States to be an important market for its products.

30. The YMTC Entities have also directly and/or indirectly imported into the United States, and offered to sell, sold, and used within the United States, the YMTC Accused Storage Products, which are made by a Micron process patented in the United States during the term of the MTI Asserted Patents. YMTC practices the patented processes, or owns or controls, or is owned or controlled by, the person who practices the patented processes. On information and belief, the YMTC Entities directly and/or indirectly sell their products to customers, including customers in this District, in the computer, networking, storage, consumer electronics, solid-state drive, and mobile telecommunications markets. The YMTC Entities encourage their customers to import, sell, resell, and/or offer to sell the YMTC Accused Storage Products in the United States. Exs. 28-30.

31. The YMTC Entities knew and know that MTI has patents in the 3D NAND technology space that are relevant to YMTC’s own 3D NAND products. For example, YMTC Inc. Director and former MTI Principal Design Engineer Daesik Song is a named inventor of approximately seven of YMTC’s patents or patent applications related to NAND power systems applicable to 3D NAND memory devices, four of which cite MTI prior art patents. YMTC has been issued at least 255 U.S. Patents that cite MTI prior art patents. These YMTC patents include,

1 for example, U.S. Patent Nos. 10,529,732 titled “Method for forming staircase structure of three-  
 2 dimensional memory device,” 10,658,378 titled “Through array contact (TAC) for three-  
 3 dimensional memory devices,” 10,680,009 titled “Method for forming gate structure of three-  
 4 dimensional memory device,” and 10,727,245 titled “Staircase etch control in forming three-  
 5 dimensional memory device.” Indeed, nearly all, if not all, of these 255 patents relate to 3D NAND  
 6 memory devices. YMTC Inc. Director Daniel (Tuenlap) Chan is a Deputy General Counsel and  
 7 the head of YMTC’s intellectual property department. Ex. 35, Ex. 32. On information and belief,  
 8 as head of IP for YMTC, Mr. Chan is and has been well aware of MTI and its patents in the field  
 9 of 3D NAND technology.

10 32. Given the large number of former Micron NAND engineers now working at the  
 11 YMTC Entities, the YMTC Entities have direct knowledge of the MTI Asserted Patents and MTI’s  
 12 underlying technology.

13 **Counterclaim I**  
 14 **(Infringement of U.S. Patent No. 10,475,737)**

15 33. MTI restates and incorporates by reference its allegations in Paragraphs 1 through  
 16 32 of its Counterclaims.

17 34. MTI, owns all right, title, and interest, including the right to recover damages for  
 18 past, present, and future infringement, in and to U.S. Patent No. 10,475,737, entitled “Stack of  
 19 horizontally extending and vertically overlapping features, methods of forming circuitry  
 20 components, and methods of forming an array of memory cells.” A true and correct copy of the  
 21 ’737 patent is attached as Exhibit 1.

22 35. The ’737 patent was duly and legally issued by the United States Patent and  
 23 Trademark Office on Nov. 12, 2019.

24 36. The YMTC Entities infringe at least claim 1 of the ’737 patent under 35 U.S.C.  
 25 § 271(a), literally and/or under the doctrine of equivalents, by using, offering for sale, selling,  
 26 and/or importing into the United States, without authorization, the YMTC Accused Storage  
 27 Products.  
 28

1           37. The YMTC Accused Storage Products are used to perform and/or practice each and  
2 every limitation of at least claim 11 of the '737 patent. A claim chart providing examples of how  
3 the YMTC Accused Storage Products practice each limitation of at least claim 11 of the '737 patent  
4 is attached as Exhibit 2 hereto and is incorporated by reference herein.

5           38. The YMTC Entities also actively induce infringement of at least claim 11 of the  
6 '737 patent under 35 U.S.C. § 271(b), and have done so since at least the filing of these  
7 counterclaims, by actively encouraging others to infringe (such infringement by others being by  
8 way of using, selling, offering to sell, or importing into the United States the YMTC Accused  
9 Storage Products).

10           39. Since at least the filing of these counterclaims, the YMTC Entities have known of  
11 the '737 patent and their infringement thereof. Since before the filing of these counterclaims, the  
12 YMTC Entities have had knowledge of MTI's patent portfolio with respect to 3D NAND  
13 technology and that portfolio's relevance and application to the YMTC Entities' own products.  
14 Accordingly, discovery may reveal the YMTC Entities knew of the '737 patent and the YMTC  
15 Entities unauthorized use thereof before the filing of these counterclaims.

16           40. The YMTC Entities know (or believe that there is a high probability) that their  
17 actions are inducing infringement and are intended to induce infringement. For example, the YMTC  
18 Entities encourage, train, instruct, and provide support and technical assistance to others to directly  
19 infringe the '737 patent by contracting with, encouraging, and instructing third parties, including  
20 equipment and design manufacturers, device manufacturers, distributors, customers, and other third  
21 parties to use, sell, offer for sale, and/or import into the United States, the YMTC Accused Storage  
22 Products and products that incorporate the YMTC Accused Storage Products. For instance, the  
23 YMTC Entities publish and provide technical materials, product specifications, and promotional  
24 literature for the YMTC Accused Storage Products that instruct and encourage the YMTC Entities'  
25 customers and other third parties to integrate the YMTC Accused Storage Products into products  
26 made, used, sold, offered for sale, and/or imported into the United States, and work with customers  
27 and potential customers to design their products using the YMTC Accused Storage Products with  
28 knowledge that those products will be used and sold in the United States.

41. Since at least the filing of these counterclaims, the YMTC Entities' infringement has been willful.

42. As a result of YMTC Entities' infringement of the '737 patent, MTI is entitled to monetary damages in an amount adequate to compensate for YMTC Entities' infringement, but in no event less than a reasonable royalty for the use made of the invention by the YMTC Entities, together with interest and costs as fixed by the Court.

**Counterclaim II**  
**(Infringement of U.S. Patent No. 8,945,996)**

43. MTI restates and incorporates by reference its allegations in Paragraphs 1 through 42 of its Counterclaims.

44. MTI, owns all right, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 8,945,996, entitled "Methods of forming circuitry components and methods of forming an array of memory cells." A true and correct copy of the '996 patent is attached as Exhibit 3.

45. The '996 patent was duly and legally issued by the United States Patent and Trademark Office on Feb. 3, 2015.

46. The YMTC Entities infringe at least claim 1 of the '996 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, by using, offering for sale, selling, and/or importing into the United States, without authorization, the YMTC Accused Storage Products.

47. The YMTC Entities infringe at least claim 1 of the '996 patent under 35 U.S.C. § 271(g), literally and/or under the doctrine of equivalents, by directly or indirectly importing into the United States the YMTC Accused Storage Products, which Products are made outside the United States using the patented process of at least claim 1 of the '996 patent, are not materially changed by subsequent processes, and are not a trivial and nonessential component of another product.

48. The YMTC Accused Storage Products are made with, used to perform, and/or practice each and every limitation of at least claim 1 of the '996 patent. A claim chart providing

1 examples of how the YMTC Accused Storage Products practice each limitation of at least claim 1  
2 of the '996 patent is attached as Exhibit 4 hereto and is incorporated by reference herein.

3 49. The YMTC Entities also actively induce infringement of at least claim 1 of the '996  
4 patent under 35 U.S.C. § 271(b), and have done so since at least the filing of these counterclaims,  
5 by actively encouraging others to infringe (such infringement by others being by way of using,  
6 selling, offering to sell, or importing into the United States the YMTC Accused Storage Products).

7 50. Since at least the filing of these counterclaims, the YMTC Entities have known of  
8 the '996 patent and their infringement thereof. Since before the filing of these counterclaims, the  
9 YMTC Entities have had knowledge of MTI's patent portfolio with respect to 3D NAND  
10 technology and that portfolio's relevance and application to YMTC Entities' own products.  
11 Accordingly, discovery may reveal the YMTC Entities knew of the '996 patent and the YMTC  
12 Entities' unauthorized use thereof before the filing of these counterclaims.

13 51. The YMTC Entities know (or believe that there is a high probability) that their  
14 actions are inducing infringement and are intended to induce infringement. For example, the  
15 YMTC Entities encourage, train, instruct, and provide support and technical assistance to others to  
16 directly infringe the '996 patent by contracting with, encouraging, and instructing third parties,  
17 including equipment and design manufacturers, device manufacturers, distributors, customers, and  
18 other third parties to use, sell, offer for sale, and/or import into the United States, the YMTC  
19 Accused Storage Products and products that incorporate the YMTC Accused Storage Products. For  
20 instance, the YMTC Entities publish and provide technical materials, product specifications, and  
21 promotional literature for the YMTC Accused Storage Products that instruct and encourage the  
22 YMTC Entities' customers and other third parties to integrate the YMTC Accused Storage Products  
23 into products made, used, sold, offered for sale, and/or imported into the United States, and work  
24 with customers and potential customers to design their products using the YMTC Accused Storage  
25 Products with knowledge that those products will be used and sold in the United States.

26 52. Since at least the filing of these counterclaims, the YMTC Entities' infringement  
27 has been willful.



53. As a result of YMTC Entities' infringement of the '996 patent, MTI is entitled to monetary damages in an amount adequate to compensate for YMTC Entities' infringement, but in no event less than a reasonable royalty for the use made of the invention by the YMTC Entities, together with interest and costs as fixed by the Court.

**Counterclaim III**  
**(Infringement of U.S. Patent No. 8,803,214)**

54. MTI restates and incorporates by reference its allegations in Paragraphs 1 through 53 of its Counterclaims.

55. MTI, owns all right, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 8,803,214, entitled "Three dimensional memory and methods of forming the same." A true and correct copy of the '214 patent is attached as Exhibit 5.

56. The '214 patent was duly and legally issued by the United States Patent and Trademark Office on Aug. 12, 2014.

57. The YMTC Entities infringe at least claim 1 of the '214 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, by using, offering for sale, selling, and/or importing into the United States, without authorization, the YMTC Accused Storage Products.

58. The YMTC Accused Storage Products are used to perform and/or practice each and every limitation of at least claim 1 of the '214 patent. A claim chart providing examples of how the YMTC Accused Storage Products practice each limitation of at least claim 1 of the '214 patent is attached as Exhibit 6 hereto and is incorporated by reference herein.

59. The YMTC Entities also actively induce infringement of at least claim 1 of the '214 patent under 35 U.S.C. § 271(b), and have done so since at least the filing of these counterclaims, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the YMTC Accused Storage Products).

60. Since at least the filing of these counterclaims, the YMTC Entities have known of the '214 patent and its infringement thereof. Since before the filing of these counterclaims, the



1 YMTC Entities have had knowledge of MTI's patent portfolio with respect to 3D NAND  
 2 technology and that portfolio's relevance and application to the YMTC Entities' own products.  
 3 Accordingly, discovery may reveal the YMTC Entities knew of the '214 patent and the YMTC  
 4 Entities' unauthorized use thereof before the filing of these counterclaims.

5 61. The YMTC Entities know (or believe that there is a high probability) that their  
 6 actions are inducing infringement and are intended to induce infringement. For example, the  
 7 YMTC Entities encourage, train, instruct, and provide support and technical assistance to others to  
 8 directly infringe the '214 patent by contracting with, encouraging, and instructing third parties,  
 9 including equipment and design manufacturers, device manufacturers, distributors, customers, and  
 10 other third parties to use, sell, offer for sale, and/or import into the United States, the YMTC  
 11 Accused Storage Products and products that incorporate the YMTC Accused Storage Products. For  
 12 instance, the YMTC Entities publish and provide technical materials, product specifications, and  
 13 promotional literature for the YMTC Accused Storage Products that instruct and encourage the  
 14 YMTC Entities' customers and other third parties to integrate the YMTC Accused Storage Products  
 15 into products made, used, sold, offered for sale, and/or imported into the United States, and works  
 16 with customers and potential customers to design their products using the YMTC Accused Storage  
 17 Products with knowledge that those products will be used and sold in the United States.

18 62. Since at least the filing of these counterclaims, the YMTC Entities' infringement  
 19 has been willful.

20 63. As a result of YMTC Entities' infringement of the '214 patent, MTI is entitled to  
 21 monetary damages in an amount adequate to compensate for YMTC Entities' infringement, but in  
 22 no event less than a reasonable royalty for the use made of the invention by the YMTC Entities,  
 23 together with interest and costs as fixed by the Court.

24 **Counterclaim IV**  
 25 **(Infringement of U.S. Patent No. 10,872,903)**

26 64. MTI restates and incorporates by reference its allegations in Paragraphs 1 through  
 27 63 of its Counterclaims.

1           65.     MTI, owns all right, title, and interest, including the right to recover damages for  
 2 past, present, and future infringement, in and to U.S. Patent No. 10,872,903, entitled “Three  
 3 dimensional memory and methods of forming the same.” A true and correct copy of the ’903 patent  
 4 is attached as Exhibit 7.

5           66.     The ’903 patent was duly and legally issued by the United States Patent and  
 6 Trademark Office on Dec. 22, 2020.

7           67.     The YMTC Entities infringe at least claim 1 of the ’903 patent under 35 U.S.C.  
 8 § 271(a), literally and/or under the doctrine of equivalents, by using, offering for sale, selling,  
 9 and/or importing into the United States, without authorization, the YMTC Accused Storage  
 10 Products.

11           68.     The YMTC Accused Storage Products are used to perform and/or practice each and  
 12 every limitation of at least claim 1 of the ’903 patent. A claim chart providing examples of how  
 13 the YMTC Accused Storage Products practice each limitation of at least claim 1 of the ’903 patent  
 14 is attached as Exhibit 8 hereto and is incorporated by reference herein.

15           69.     The YMTC Entities also actively induce infringement of at least claim 1 of the ’903  
 16 patent under 35 U.S.C. § 271(b) and have done so since at least the filing of these counterclaims,  
 17 by actively encouraging others to infringe (such infringement by others being by way of using,  
 18 selling, offering to sell, or importing into the United States the YMTC Accused Storage Products).

19           70.     Since at least the filing of these counterclaims, the YMTC Entities have known of  
 20 the ’903 patent and their infringement thereof. Since before the filing of these counterclaims, the  
 21 YMTC Entities have had knowledge of MTI’s patent portfolio with respect to 3D NAND  
 22 technology and that portfolio’s relevance and application to the YMTC Entities’ own products.  
 23 Accordingly, discovery may reveal the YMTC Entities knew of the ’903 patent and the YMTC  
 24 Entities’ unauthorized use thereof before the filing of these counterclaims.

25           71.     The YMTC Entities know (or believe that there is a high probability) that their  
 26 actions are inducing infringement and are intended to induce infringement. For example, the  
 27 YMTC Entities encourage, train, instruct, and provide support and technical assistance to others to  
 28 directly infringe the ’903 patent by contracting with, encouraging, and instructing third parties,

1 including equipment and design manufacturers, device manufacturers, distributors, customers, and  
 2 other third parties to use, sell, offer for sale, and/or import into the United States, the YMTC  
 3 Accused Storage Products and products that incorporate the YMTC Accused Storage Products. For  
 4 instance, the YMTC Entities publish and provide technical materials, product specifications, and  
 5 promotional literature for the YMTC Accused Storage Products that instruct and encourage the  
 6 YMTC Entities' customers and other third parties to integrate the YMTC Accused Storage Products  
 7 into products made, used, sold, offered for sale, and/or imported into the United States, and works  
 8 with customers and potential customers to design their products using the YMTC Accused Storage  
 9 Products with knowledge that those products will be used and sold in the United States.

10 72. Since at least the filing of these counterclaims, the YMTC Entities' infringement  
 11 has been willful.

12 73. As a result of YMTC Entities' infringement of the '903 patent, MTI is entitled to  
 13 monetary damages in an amount adequate to compensate for YMTC Entities' infringement, but in  
 14 no event less than a reasonable royalty for the use made of the invention by the YMTC Entities,  
 15 together with interest and costs as fixed by the Court.

16 **Counterclaim V**  
 17 **(Infringement of U.S. Patent No. 10,373,974)**

18 74. MTI restates and incorporates by reference its allegations in Paragraphs 1 through  
 19 73 of its Counterclaims.

20 75. MTI, owns all right, title, and interest, including the right to recover damages for  
 21 past, present, and future infringement, in and to U.S. Patent No. 10,373,974, entitled  
 22 "Microelectronic devices and related methods." A true and correct copy of the '974 patent is  
 23 attached as Exhibit 9.

24 76. The '974 patent was duly and legally issued by the United States Patent and  
 25 Trademark Office on Aug. 6, 2019.

26 77. The YMTC Entities infringe at least claim 1 of the '974 patent under 35 U.S.C.  
 27 § 271(a), literally and/or under the doctrine of equivalents, by using, offering for sale, selling,  
 28

1 and/or importing into the United States, without authorization, the YMTC Accused Storage  
2 Products.

3 78. The YMTC Accused Storage Products are used to perform and/or practice each and  
4 every limitation of at least claim 1 of the '974 patent. A claim chart providing examples of how  
5 the YMTC Accused Storage Products practice each limitation of at least claim 1 of the '974 patent  
6 is attached as Exhibit 10 hereto and is incorporated by reference herein.

7 79. The YMTC Entities also actively induce infringement of at least claim 1 of the '974  
8 patent under 35 U.S.C. § 271(b), and have done so since at least the filing of these counterclaims,  
9 by actively encouraging others to infringe (such infringement by others being by way of using,  
10 selling, offering to sell, or importing into the United States the YMTC Accused Storage Products).

11 80. Since at least the filing of these counterclaims, the YMTC Entities have known of  
12 the '974 patent and their infringement thereof. Since before the filing of these counterclaims, the  
13 YMTC Entities have had knowledge of MTI's patent portfolio with respect to 3D NAND  
14 technology and that portfolio's relevance and application to the YMTC Entities' own products.  
15 Accordingly, discovery may reveal the YMTC Entities knew of the '974 patent and the YMTC  
16 Entities' unauthorized use thereof before the filing of these counterclaims.

17 81. The YMTC Entities know (or believe that there is a high probability) that their  
18 actions are inducing infringement and are intended to induce infringement. For example, the  
19 YMTC Entities encourage, train, instruct, and provide support and technical assistance to others to  
20 directly infringe the '974 patent by contracting with, encouraging, and instructing third parties,  
21 including equipment and design manufacturers, device manufacturers, distributors, customers, and  
22 other third parties to use, sell, offer for sale, and/or import into the United States, the YMTC  
23 Accused Storage Products and products that incorporate the YMTC Accused Storage Products. For  
24 instance, the YMTC Entities publish and provide technical materials, product specifications, and  
25 promotional literature for the YMTC Accused Storage Products that instruct and encourage the  
26 YMTC Entities' customers and other third parties to integrate the YMTC Accused Storage Products  
27 into products made, used, sold, offered for sale, and/or imported into the United States, and works  
28

1 with customers and potential customers to design their products using the YMTC Accused Storage  
2 Products with knowledge that those products will be used and sold in the United States.

3 82. Since at least the filing of these counterclaims, the YMTC Entities' infringement  
4 has been willful.

5 83. As a result of YMTC Entities' infringement of the '974 patent, MTI is entitled to  
6 monetary damages in an amount adequate to compensate for YMTC Entities' infringement, but in  
7 no event less than a reasonable royalty for the use made of the invention by the YMTC Entities,  
8 together with interest and costs as fixed by the Court.

### 9 **DEMAND FOR A JURY TRIAL**

10 Defendants and counterclaim plaintiff request a jury trial on all issues related to YMTC's  
11 claims and MTI's counterclaims that are so triable.

### 12 **PRAYER FOR RELIEF OF DEFENDANTS AND COUNTERCLAIM PLAINTIFF**

13 WHEREFORE, having fully answered, defendants and counterclaim plaintiff pray that the  
14 Court enter judgment as follows:

15 A. A judgment in favor of Micron and against YMTC on all of YMTC's claims,  
16 including a dismissal with prejudice of all of YMTC's claims;

17 B. A judgment declaring that Micron has not infringed, contributed to the infringement  
18 of, or induced others to infringe, either directly or indirectly, literally or under the doctrine of  
19 equivalents, any valid claims of the YMTC Asserted Patents;

20 C. A judgment declaring that the YMTC Asserted Patents are invalid;

21 D. A judgment declaring that this YMTC's case against Micron is exceptional and an  
22 award to Micron of its reasonable costs and expenses of litigation, including attorneys' fees and  
23 expert witness fees;

24 E. A judgment in favor of MTI and against the YMTC Entities on all of its  
25 Counterclaims;

26 F. A judgment in favor of MTI that the YMTC Entities have infringed and are  
27 infringing, either literally and/or under the doctrine of equivalents, one or more claims of each of  
28 the MTI Asserted Patents;

G. An order pursuant to 35 U.S.C. § 283 enjoining the YMTC Entities and their subsidiaries, parents, divisions, affiliates, successors, assigns, transferees, officers, directors, attorneys, agents, servants, employees, privies, and all other persons in active concert or participation with any of the foregoing, from continued acts of infringement of the claims of the MTI Asserted Patents;

H. A judgment and order requiring the YMTC Entities to pay Micron its damages, costs, expenses, and pre-judgment and post-judgment interest for the YMTC Entities' infringement;

I. If a permanent injunction is not granted, then a judicial determination of the conditions for the YMTC Entities future infringement, such as an ongoing royalty;

J. A determination that the YMTC Entities infringement has been willful;

K. A determination that the damages award against the YMTC Entities be increased pursuant to 35 U.S.C. § 284 because of the willful and deliberate nature of the YMTC Entities' conduct;

L. A judgment declaring that MTI's case against the YMTC Entities is exceptional and an award to MTI of its reasonable costs and expenses of litigation, including attorneys' fees and expert witness fees;

M. All other relief that the Court deems just and proper.

Dated: February 16, 2024

ORRICK, HERRINGTON & SUTCLIFFE LLP

By: /s/ Jared Bobrow  
Jared Bobrow

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